

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 September 2001 (13.09.2001)

PCT

(10) International Publication Number
WO 01/67210 A2

- (51) International Patent Classification⁷: **G06F**
- (21) International Application Number: PCT/US01/07352
- (22) International Filing Date: 8 March 2001 (08.03.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/520,991 8 March 2000 (08.03.2000) US
- (71) Applicant and
(72) Inventor: **COOK, Jeffery, A.** [US/US]; Automotive Information Services, Inc., Suite 306, 3511 N. Hall Street, Dallas, TX 75219 (US).
- (74) Agents: **PLATT, Michael, T.** et al.; Patton Boggs LLP, 2550 M Street, N.W., Washington, DC 20037 (US).
- (81) Designated States (*national*): AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 01/67210 A2

(54) Title: METHOD AND APPARATUS FOR PROVIDING INTERNET BASED LEASE QUOTING SERVICE TO INTERMEDIATE AUTOMOBILE VEHICLE DEALERS

(57) Abstract: A method for providing Web based lease quoting services to vehicle dealers via an authenticated Internet connection. Dealer downloads a user-interface and financial calculation program from a vendor web-site, or installs the program via portable storage media, to a dealer local workstation. Dealer then downloads financial calculation parameters and program code for generating lease quotes for each of a plurality of lenders. Dealer inputs purchaser and product information via GUI. Based on lender-specific financial calculation parameters and program code, and on input buyer and product information, Dealer produces lease quotes and prints contracts and other forms.

**METHOD AND APPARATUS FOR PROVIDING INTERNET BASED LEASE QUOTING SERVICE
TO INTERMEDIATE AUTOMOBILE VEHICLE DEALERS**

DESCRIPTION

5

Field of the Invention

This invention relates generally to Internet and local
workstation-based generation of lease quotes and, more
10 particularly, to an Internet or corporate intranet-based
system having a lender database representing lending terms,
conditions and rate calculations of each of a plurality of
lenders, and inputting at the dealer site buyer
information, product information, and requested lease terms
15 via graphical user interface, and generating and displaying
lenders' quotes for finance of the lease, based on the
lender database and the input buyer and product
information.

Description of the Related Art

20

Automobiles are becoming more and more expensive and,
as a result, an increasing number of purchasers are looking
at alternative financing arrangements. An increasingly

popular form of financing is leasing. Although a lessee does not obtain actual title to the car, he or she has substantially exclusive use of it for the term of the lease, which is typically two to five years. At the end of the lease the person gives the car back to the dealer, or purchases it based on a price agreed to at the conception of the lease. There are variations of these terms known to persons skilled in the art of automobile financing and, to the extent necessary to understand this invention, these will be explained.

Monthly payments on a lease are generally less than the monthly payments for purchase of the same car, assuming that the length of the purchase loan and the length of the lease are the same. The basic reason is that a person leasing a car is paying for less than the car's total value. Instead, the lessee is paying for the depreciation of the car over the term of the lease, plus whatever profit the dealer and lending institution add on.

The depreciation on which the lease payment is based can be set the conception of the lease, which is termed a "closed end lease." On the other hand, the depreciation

can be estimated and then adjusted at the end of the lease to match the actual value of the car at that time, which is termed an "open ended lease." The depreciation is calculated in a straightforward manner, basically it is the difference between the retail price at the conception of the lease and the value of the car at the end of the lease. The latter value is called the Residual Value of the car.

With a closed end lease the Residual Value is fixed at the conception of the lease and both parties are bound to that value, unless the car at that time is in a condition less than that specified by the lease or by the law of the state governing the transaction. Therefore, unless the car has deteriorated to such an extent, that "extent" being a legal issue beyond the scope of this description, the lessee returns the car at the termination of the lease period and the contract is completed. An open lease differs in that the Residual Value is not fixed, it is estimated. If the car's actual value at the end of the lease term is less than the estimated Residual Value the lessee pays the difference. If the car's actual value is greater than the estimated Residual Value the dealer may,

depending on the terms of the lease contract and of the governing state law, refund a portion of the total lease payment.

The lower payments obtained through a lease can be
5 illustrated by a simple example. Assume that a person
purchases a \$36,000 car on a five-year note. He or she is
paying \$36,000 in principal over five years. If, for
purposes of example, the annual interest is 5%, the monthly
payments will be _____. For this example, the car's
10 estimated market value after five years will be \$18,000.

For a closed end lease the Residual Value will therefore be
\$18,000. Assuming the person leased the car for five years
and, instead of purchasing it with a five-year note
financed the depreciation over the same length of time at
15 the same interest. The monthly payments for an \$18,000
loan at 5% over five years are _____. As is readily seen,
the savings are considerable.

In the actual leasing market the per-month savings are
not quite as large as the example shows, due to the
20 "interest" on the depreciation not being calculated in the
same manner as the interest on a purchase note. The per-

month savings, nevertheless, are considerable. In the addition, there are certain tax advantages that may make leasing even more attractive to certain buyers.

5 The increasing number of purchasers who wish to lease cars is placing an increasing burden on dealers to procure lenders. The burden is further increased due to the increasingly competitive nature of car dealers. This is driven both by their ever-increasing numbers and, due to the mobility of customers and the erosion of buyers' 10 loyalty to any given dealer. A car salesman may lose a customer to another dealer based on a price difference of a few hundred dollars, or on a difference in monthly lease payments ranging in the tens of dollars.

The car dealer, however, is not the only seller 15 dictating the monthly lease payment to the buyer. The lender, who finances the depreciation of the car over the term of the lease, is the other. Therefore, to offer the customer the lowest, most attractive lease terms the car dealer must find the lender offering the lowest, most 20 attractive terms. In today's market, a typical car dealer

may have between ten and twenty lenders to turn to when the buyer sits down at the table.

However, maintaining information on ten to twenty lenders is time consuming. This is particularly so because lenders typically have their own lending parameters, such as what credit worthiness they will accept, their own lending amount maximums, in addition to methods of calculating lease payments, as well as their own tables of Residual Values.

10

SUMMARY OF THE INVENTION

An object of the present invention is to provide an apparatus and method for generating competitive quotes for lease financing from a plurality of lenders, based on a locally accessible, centralized, regularly updated database of lender descriptors and lender-specific parameters, and an input purchase-specific data set describing the product to be leased, the purchaser's financial information, and desired lease terms.

20

A further object of the invention is to input the purchase-specific data set and to display the generated quotes from one or more of the plurality of lenders via a graphical user interface.

5 A still further object of the invention is to automatically select one from among the generated quotes based on the quoted monthly lease payment and other user-specified selection parameters.

Yet another object of the invention is to compare the
10 purchase-specific data against lender-specific parameters stored in the database, the lender-specific parameters including a maximum loan amount, and to generate and display, via the graphical user interface, a warning flag if any of the purchase-specific data compares according to
15 pre-determined comparison thresholds.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, aspects, and
20 advantages will be better understood from the following

description of preferred embodiments of the invention with
reference to the drawings, in which:

Fig. 1 is a basic system diagram of an embodiment of the
5 present invention;

Fig. 2 is a functional flow chart of an example operation
of the embodiment of Fig. 1; and

Fig. 3 is an example graphical user interface screen
display of a user workstation operating within the system
10 of Fig. 1.

DETAILED DESCRIPTION OF THE EMBODIMENTS

For purposes of this description the following
15 glossary of terms and definitions applies, except where
otherwise noted:

<u>Term</u>	<u>Definition</u>
20 A&H	Accident & Health Insurance. See <i>Disability Insurance</i> .
Acquisition Fee (Also referenced 25 as Acq. Fee)	Fee charged by Lender to acquire the vehicle. These fees may be paid up front or rolled into the lease

5	ACV	Actual Cash Value. This is the estimated retail value a Trade-in has to the dealership. It is generally, if not always, less than the trade-in value given the customer.
	Ad Valorem Tax	Value Added Tax (VAT).
10	Beacon Score	A credit rating score issued by any of a number of Credit Bureaus. Lenders may set a minimum Beacon Score that is used to qualify potential lessees.
15	Cap Cost Reduction	The combination of cash down, trade equity and rebates which reduces the Capitalized Cost of a vehicle.
20	Capitalized Cost (Also referred to as "Cap Cost")	The total amount financed by the Lender.
25	Capped Fees	Fees which are included in calculating the Capitalized Cost.
	Closed End Lease	A type of lease where the customer has a fixed price he may purchase the vehicle at the end of the lease term.
30	Credit/Life	Credit/Life Insurance.
35	Dealer Participation additional profit.	An amount the dealer may add to the Lender's Money Factor to earn
	Disability Insurance	See A&H.
40	Disposition Fee (Also referred to	An amount charged by the Lender and collected at lease end.

as "Term Fee" or
"Termination Fee")

5	Early Term Fee	A fee charged by the Lender to terminate a lease before its contracted expiration.
10	Gap Coverage	Insurance provided to Lessee which covers the "gap" (the difference between vehicle's actual value and the amount which has been paid for vehicle) which may result from an early termination. Gap coverage is typically needed in the event the vehicle is
15		stolen or totaled.
	Gross	The amount of gross profit a Dealer makes on a Lease.
20	Hard Adds	Dealer added features which are included in the Residual calculation.
	Holdback	A percentage of the vehicle's price which is credited back to the Dealer (from the Manufacturer) after the Lease (or sale).
25		
	Invoice	The published amount a Dealer pays the Manufacturer for a vehicle.
30		
	Luxury Tax	A federal tax charged for vehicles with a Sales Price in excess of \$36,000.
35	Money Factor (Also called "Lease Rate Factor")	A decimal number used to calculate the finance charge of a Lease. A Money Factor is analogous to a traditional Interest Rate.
40	MSRP	Manufacturer's Suggested Retail Price of a vehicle.

5	Open End Lease	A type of Lease where the customer is responsible at lease end for the difference between the Actual Value and the pre-calculated Residual Value of the vehicle.
10	Residual	A percentage which is used to calculate the estimated value of a vehicle at the end of a Lease Term.
15	Sales Price	The actual price of a vehicle as negotiated between a Dealer and a Customer.
	Sales Tax	Traditional state sales tax charged on the purchase or lease of an item.
20	Soft Adds	Dealer added options which are not included in the Residual calculation.
	Term	The number of months which a vehicle may be leased.
25	Upside Down	This refers to a customer who owes more on a trade than the trade vehicle is worth.
30	VIN	Vehicle Identification Number

Referring to Fig. 1, an example embodiment of the present invention comprises a data server 10 storing a vendor database 12, which is connected via the Internet 14 to a web server 16 hosting a vendor website 18. The vendor database 12 is also connected via the Internet 14 to a

database 20 of lender-specific program modules (not numbered) and data sets (not numbered), for each of a plurality of lenders (not numbered). The program modules and data sets within database 20 embody information
5 describing each represented lender's particular method of calculating lease quotes. However, the database 20 information is not in a regular executable form and, therefore, cannot be merely downloaded onto a computer and used.

10 As stated above, each particular vendor has its own lease calculation method. The method is derivable from the information in database 20. However, all of the methods are some variation of the following:

$$3. \quad (\text{Sales Price} - \text{Vehicle Residual Value}) \div \text{Lease Term}$$

$$15 \quad \quad \quad = \text{Estimated Depreciation Per Month};$$

$$4. \quad (\text{MSRP} + \text{Vehicle Residual Value}) * \text{Money Factor}$$

$$\quad \quad \quad = \text{Rent Charge}; \text{ and}$$

$$5. \quad \text{Estimated Depreciation per Month} + \text{Rent Charge}$$

$$\quad \quad \quad = \text{Monthly Lease Payment}.$$

20 Applying the basic method above to an example car having a \$30,000 Sales Price, a \$30,000 MSRP, an estimated

Residual Value of \$15,650, leased for 36 months, through a lender charging a Money Factor of .00379 yields:

$$1a) (\$30,000 - \$15,650) \div 36 = \$14,350 \text{ Estimated}$$

Depreciation Per Month;

5 $2a) (\$30,000 + \$15,650) * .00379 = \$ 173.01 \text{ Rent}$

Charge Per Month;

$$3a) \$398.61 + \$173.01 = \$ 571.62 \text{ Monthly Lease Payment.}$$

The Vehicle Residual Value for each lender is calculated by multiplying the vehicle's MSRP times a Residual Percentage. However, the Residual Percentage differs for each vehicle, each lease term, and for each lender. In addition, many lenders allow the dealer to adjust the MSRP upward based on certain added equipment, termed "Hard Adds" in the business. Examples of "Hard Adds" are stereos and air conditioning. However, each lender does not allow the same value for the same Hard Add. In addition, different lenders have different lists of vehicle options that can be added as a Hard Add. Still further, each lender may adjust the Residual Value for extraordinary situations, such as high mileage and commercial use, or for

10
15
20

special considerations, such as end of lease purchase agreements.

The example database 20 for this embodiment is the "ALG Electronic File Service", which is accessible via the Internet to authorized commercial enterprises according to access and authorization protocol well known to one of ordinary skill in the relating business arts. The example system further comprises a dealership server 22 hosting and connected to, via any conventional intra-corporate network system such as, for example, Windows NT, a plurality of dealership workstations 24. Depending on the size of the dealer (not numbered) the dealership server 22 and workstations 24 may be co-located, or remotely located from one another.

The dealership server 22 is connected, via the Internet 14, to the user interfaces of one or more commercial credit bureaus such as, for example, TRW Credit and Equifax.

The vendor database 12 contains a lease quoting program, Lease Program, which is downloadable and installable on the dealership server 22 and, depending on

he particular network configuration employed by the dealer,
on the workstations 24 as well. The download is
accomplished by visiting the vendor website 18 and clicking
on the "download" button (not shown) which jumps the
5 visiting browser to the vendor's data server 10 for a
download of the Lease Program via FTP or TCP/IP protocol.
The Lease Program carries out the lease-quote generating
methods for each of a large plurality vendors, and contains
all initialization, and all graphical user interface (GUI)
10 processes for the car salesman to input all required data,
and run the program and at his or her workstation 24, as
will be described. The vendor database 12 also contains
program updates, PGUPDATES, reflecting changes in the
individual lender's method of quote calculation, as well as
15 updates to the GUI interface and other features presented
to the salesman by the workstation 24.

The vendor database 12 further contains lender-
specific Master Data Updates, for each of the plurality of
lenders, having acceptable makes and models of cars, the
20 lender's own Residual Value tables, and Money Factors.

An example data server 10 for this depicted embodiment is a standard "Wintel" Pentium-based, or equivalent, general purpose server such as, for example, a Compaq Proliant®, having a Pentium III processor, 1 gigabyte (Gb) of random access memory (RAM), and a 64 gigabyte (Gb) read-write disc storage array, running under the Windows NT Server 4.0 operating system.

An example web server 16 for this depicted embodiment is also a standard "Wintel" server such as, for example an HP NetServer®, having a Pentium III® processor, 512Mb RAM, and a 25Gb read-write disc storage, running under the Windows NT Server 4.0 operating system.

A representative example of the dealership server 22 for this example embodiment is also a conventional Pentium-based or equivalent processor based general purpose server, such as Dell PowerEdge® 2300, having a Pentium III® processor, 512Mb of RAM, and a 27Gb read-write disc storage array, running under the Windows NT Server 4.0 operating system.

An example dealership workstation 24 is Dell Optiplex®, having a Pentium III® processor, 64Mb of RAM,

and a 6Gb read-write disc storage, running under the Windows NT Server 4.0 operating system.

The present invention is not limited to the Windows NT operating system, which is recited only for purposes of example. The invention contemplates operation under other client and server operating systems, including Silicon Graphics' SGS UNIX, Sun Solaris, Linux and Apple OSX.

Referring now to Figs. 2 and 3, an example operation of the present invention will be described. First, at step 100 of Fig. 2 the user, who is either a car salesman or leasing manager at the car dealership, clicks on a prompt (not shown) on the start-up screen (not shown) of the workstation 24. This pulls up a graphical user interface (GUI) data entry screen such as the example 200 shown at Fig. 3. Next, at step 102, the user clicks on the CUSTOMER INFO tab 302 and enters information into all of the fields corresponding to customer information. The information includes, but is not limited to, CUSTOMER NAME, ADDRESS, and CREDIT INFO. For this example operation, the credit information is assumed to have been pre-obtained by the user, either by telefax (not shown) or by accessing the

credit bureau via the Internet. The methods and protocol for obtaining a customer's credit rating are well known in the art.

Next, at step 104, the user clicks on the LEASE tab
5 303 of Fig. 3 and enters information describing the vehicle to be leased in the fields 304, including MAKE, MODEL, STYLE, VIN and the number of miles on the vehicle. The example values entered in fields 304 of Fig. 3 is a model year 2000 Ford® Explorer® 2WD Wagon, Eddie Bauer® edition,
10 with 15 miles on it. The program then goes to step 104, and pulls and displays the MSRP at field 306 of Fig. 3, and then goes to step 105 at which the user enters the SELL price into field 308. In the Fig. 3 example the SELL is \$36,500.00, and the depicted example MSRP is \$37,453.99.
15 Next, at step 108, the user enters the INVOICE into field 310 of Fig. 3. The INVOICE is the dealer's cost. If the vehicle to be leased is used the INVOICE would be the total cost the dealer put into it, i.e., the price paid the customer plus any repairs.

20 The example Lease Program execution of Fig. 2 then proceeds to step 110 and calculates a tentative sales tax

amount displayed at field 312. The sales tax displayed at field 312 may be updated as the user continues to enter data. For example, depending on the particular tax law of the state governing the transaction the sales tax may be
5 adjusted if the customer applies a trade-in vehicle to the lease price.

Next, the Fig. 2 program proceeds to step 112 to wait for the user's entry of a check into one of fields 314a, 314b, or 314c, indicating whether the lease is personal,
10 commercial or other.

Next, at step 114 the user enters the duration or term of the lease into field 316. For this example embodiment the term is in months. Also at step 114 the user enters the total miles per year into field 318. The miles per
15 year value can be customer-driven, and the Lease Program stored in workstation 24 is contemplated as providing for lenders' particular high and low mileage leases. In addition, the Lease Program accommodates for the mileage, later, in calculating the Residual, according to the rules
20 of the particular lender.

Next, at step 116 the user enters cash down in field 320 and/or any rebate applicable into field 322.

Next, at step 118 the user enters any number of the ancillary services offered by the dealer which the buyer has accepted, such as life insurance or disability insurance. The price and identity of ancillary services is checked by the quote generating steps described below, because different lenders have different standards as to which services it will finance. As will also be described, any ancillary services not provided for by the lease financing will either be added into the up-front initial payment or added to the monthly lease payment.

Once the above-defined information is entered, the user clicks on the create-quote button 324 whereupon the program proceeds to step 120 and calculates a plurality of quotes using lender-specific routines downloaded from the vendor database 12 which, in turn, are based on information obtained through the lender database 20. The Lease Program resides in, and executes its calculation instructions either within the dealer server 22 or within the

workstation 24, depending on the design choice made by the dealer's system administrator.

After the quotes are generated the Lease Program goes to step 122 which presents results in the scrolling field 326 of the user screen, in increasing order of the QUOTE price. The quote information displayed in the scrolling field 326 also includes the Money Factor, shown as "Rate" in the Fig. 3 example, and the Residual in terms of percent.

Next, at step 124, the user clicks in the field 328 to select a lender. Which lender is selected depends on the buyer preference, as well as any suggestions from the user. However, it will be assumed for purposes of this description that the default the dealer automatically picks the lowest Quote, as is shown at the checked box beside "GE Capital."

After the lender is selected at step 124 the program goes to step 126 which displays a Cash Required value in field 330, with a breakdown in field 332. Depending on the policy of the dealer and other factors, the screen can at this time be viewed by the customer. Next, at step 125,

the necessary forms (not shown) are printed for review and execution by the buyer.

The Fig. 3 example shows a scroll list of lenders at field 334. There is no theoretical maximum on the number of lenders. However, for typical contemplated installations of the present invention, number of lenders is between 15 and 20 lenders are in the dealer's computer. After the quotes are generated at step 122, the user can click in the appropriate area of field 335, which selects one of the vendors in the field 334 scroll list, to pull up all of the relevant parameters and lending criteria (not shown). If the particulars of the leasing deal for which the quote was generated do not match any of the lender parameters (not shown), or default values (not shown), then the user can enter updated values. If any of the information that is updated changes the quote for that lender then a new quote is generated. If the update is global then all of the quotes are re-generated.

Referring to Figs. 2 and 3 another embodiment of the invention will be described, which calculates a running gross profit for the dealer, labeled GROSS, and displays

its value to the user in an updated manner at field 334.

Referring to Fig. 2, the GROSS is a running calculation of the dealer gross profit which step 128 calculates each instance a cost/profit is entered via the above-described

5 steps. Therefore, for this embodiment step 128 first updates the GROSS value after the user enters the SALE price at step 104. Step 128 updates the GROSS again after step 108 when the user enters the INVOICE price. The final GROSS value, an example of which is shown in field ³³⁶~~334~~ of

10 Fig. 3 is equal to (sales price + trade profit + acquisition fee profit + reserve profit + miscellaneous profit) - invoice price.

While the foregoing invention has been described with specific references to examples of its preferred

15 embodiments, it should be understood that various substitutions, variations, and modifications may be made thereto without departing from the scope of the invention as defined in the appended claims. For example, the quote calculation program is described as resident on the vendor

20 database 12, which is downloaded from the vendor server 10 via TCP/IP or FTP transfer via, or by jump site from, the

web site 16. However, instead of downloading the program via the Internet the program can be installed in the dealer server 22 and/or workstation 24 from a portable medium, such as a CD-ROM.

CLAIMS

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

- 1 1. A method for generating leasing quotes comprising
- 2 steps of:
- 3 storing a program in a general purpose computer, said
- 4 program having instructions for the general purpose
- 5 computer to generate lease quotes according to a plurality
- 6 of quote generation formulae, each associated with a
- 7 corresponding one of a plurality of lenders;
- 8 storing a plurality of lending parameter sets, each
- 9 parameter set associated with a corresponding one of said
- 10 plurality of lenders, and each parameter set including a
- 11 vehicle residual value list and a money factor data;
- 12 inputting a customer-identification data representing
- 13 a credit worthiness of said customer;
- 14 inputting a product descriptor data, said data
- 15 including a price of the product;

16 inputting a lease term data representing a duration of
17 a lease;

18 calculating a quote data for each of one or more of
19 said plurality of lenders, based on said program, said
20 plurality of data sets, said customer descriptor data, said
21 product descriptor data and said lease term data; and
22 displaying one or more of said quote data calculated
23 by said calculating step.

1 2. A method according to claim 1 further comprising steps
2 of:

3 generating an update signal;

4 establishing a connection between said general purpose
5 computer and a remote database having update program data
6 for updating said program; and

7 downloading said update program data from said remote
8 database to said general purpose computer.

1 3. A method according to claim 1 further comprising steps
2 of:

3 initializing a profit data representing a gross

4 profit;

5 detecting each value entered by said step of entering
6 a product descriptor data which affects a pre-determined
7 profit calculation;

8 updating said profit data in response to said
9 detecting; and

10 displaying said updated profit data.

1 3. A method according to claim 1 further comprising steps
2 of:

3 receiving a lender parameter inspection request;

4 displaying a lender parameter data value in a field of
5 a graphical user interface in response to said receiving;

6 receiving updated lender parameter data values into
7 said field; and

8 repeating said step of calculating a quote data, based
9 on said updated lender parameter data.

1 5. A method according to claim 3 further comprising steps
2 of:

3 generating an update signal;

4 establishing a connection between said general purpose
5 computer and a remote database having update program data
6 for updating said program; and
7 downloading said update program data from said remote
8 database to said general purpose computer.

1 6. A method according to claim 4 further comprising steps
2 of:
3 generating an update signal;
4 establishing a connection between said general purpose
5 computer and a remote database having update program data
6 for updating said program; and
7 downloading said update program data from said remote
8 database to said general purpose computer.

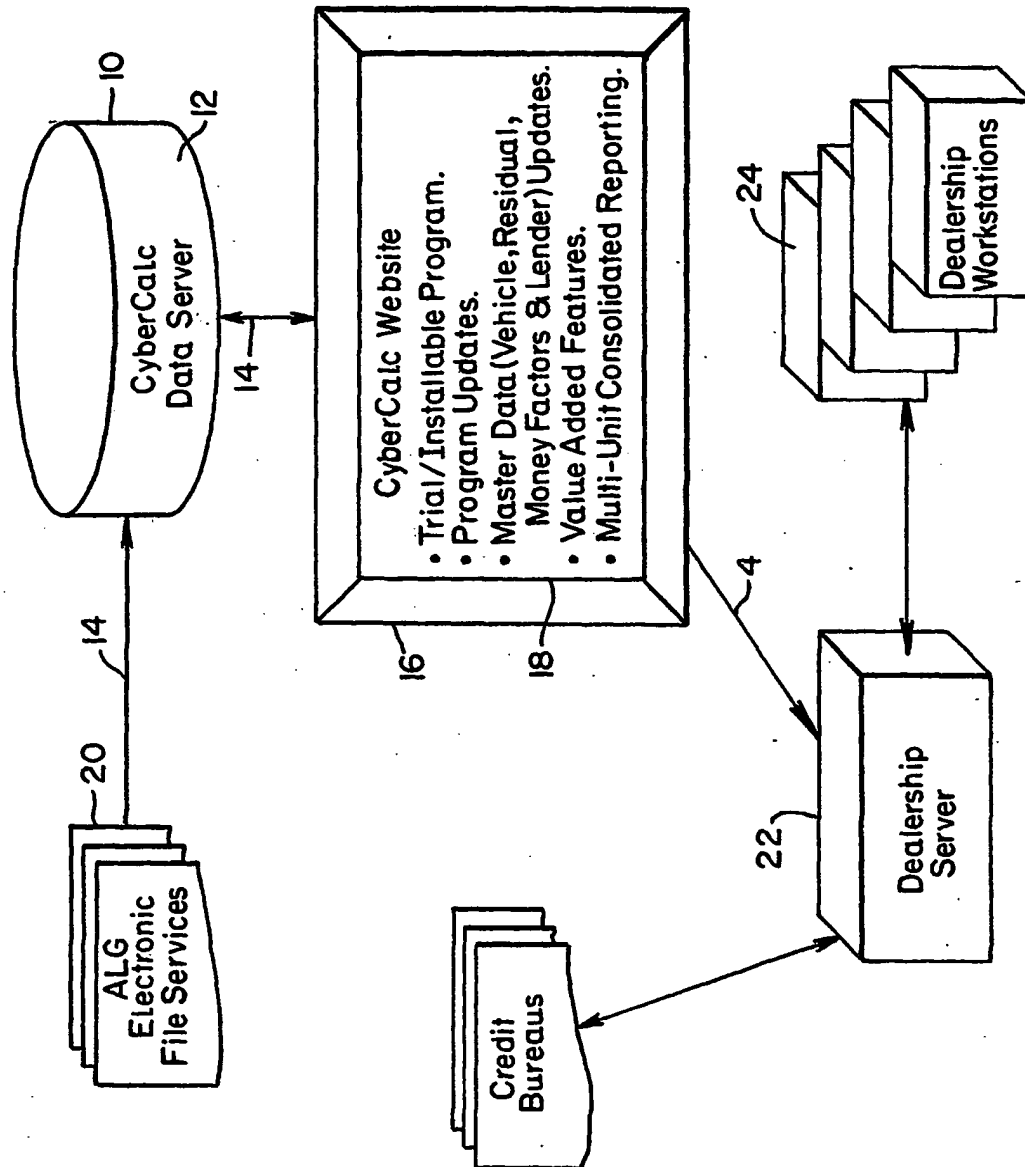
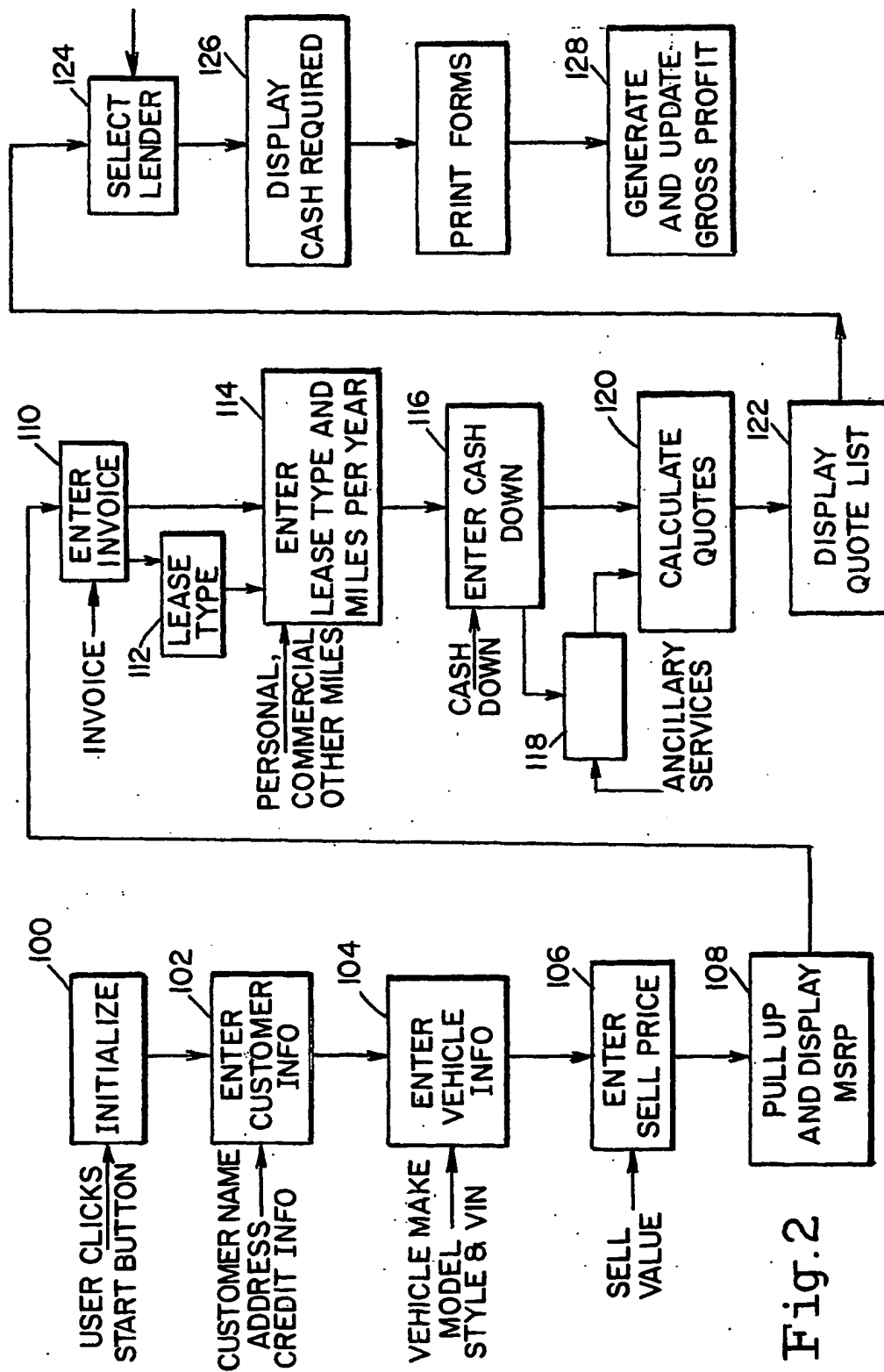


Fig.1



200

Fig.3

QuoteGenerator

AIS, Inc.

Deliver Find Print Delete New Save

Lease Other Info Balloon Retail

Coffey, John 304

Vehicle-1999 Explorer 2WD 4d Wgn Eddie Bauer 312

MSRP \$37,500.00 VIN nlkjhk,149154851

Sell \$ \$34,550.00 Miles 6

Invoice \$ \$32,514.00 Taxes:

Hard-adds \$250.00 Sales \$0.00

Soft-adds \$0.00 Use \$0.00

First Payment 01/31/99

☒ New ☐ Used ☐ Demo

Cash Required

Gross Cap Cost: \$32,050.00

1st Payment: \$634.87

Sec. Deposit/Last Pmt: \$550.00

1st Year Licence: \$0.00

Sales/Luxury Tax: \$0.00

Acquisition Fee: \$495.00

Warranty: \$0.00

Other: \$0.00

Cash Down/Rebate: \$2,500.00

Tax on Trade: \$0.00

TOTAL: \$4,278.87

Trade Equity: \$0.00

Lease Profit: \$0.00

GROSS: \$1,786.00

☒ Personal ☐ Business ☐ Other 314c

Term (mos) 36 Life Ins. \$0.00

Miles/Year 15,000 Disability \$0.00

Cash Down \$1000.00 Fees:

Rebate \$1500.00 Title \$0.00

Deposit \$650.00 Lic./Reg. \$0.00

Warranty \$0.00 Acquisition \$495.00

Services \$0.00 Trade:

Doc. Fee \$0.00 Trade \$0.00

Other \$0.00 Payoff \$0.00

Available Lenders:

☒ Chase ☐ Lender

☒ FMCC ☐ Chase

☒ GE Capital ☐ ?

☒ NationsBank ☐ ?

Rate Resid Quote

0.00365 45.90% \$634.87

Create Quotes

Reset Form

Record I of I (Filtered)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 September 2001 (13.09.2001)

PCT

(10) International Publication Number
WO 01/67210 A3

(51) International Patent Classification⁷: **G06F 17/60**

(21) International Application Number: **PCT/US01/07352**

(22) International Filing Date: **8 March 2001 (08.03.2001)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
09/520,991 8 March 2000 (08.03.2000) US

(71) Applicant and

(72) Inventor: **COOK, Jeffery, A.** [US/US]: Automotive Information Services, Inc., Suite 306, 3511 N. Hall Street, Dallas, TX 75219 (US).

(74) Agents: **PLATT, Michael, T. et al.:** Patton Boggs LLP, 2550 M Street, N.W., Washington, DC 20037 (US).

(81) Designated States (national): **AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES,**

FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW.

(84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW). Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).**

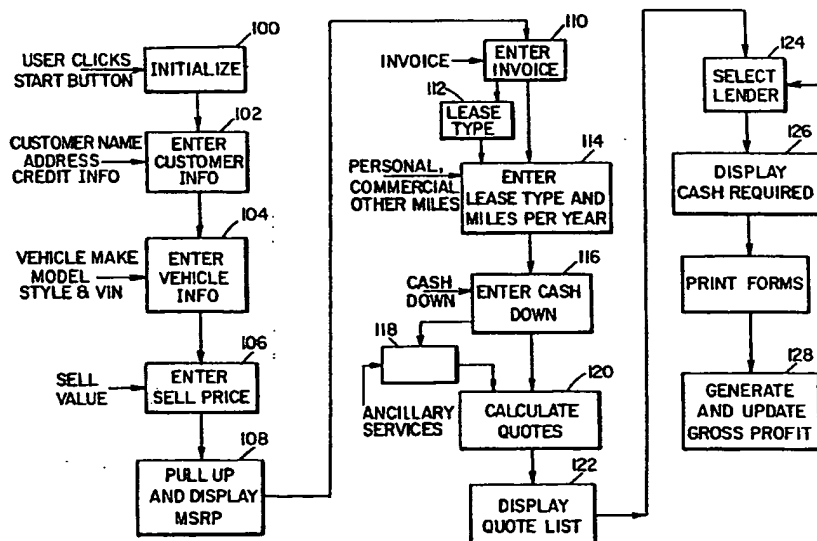
Published:

— with international search report

(88) Date of publication of the international search report:
28 February 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **METHOD AND APPARATUS FOR PROVIDING INTERNET BASED LEASE QUOTING SERVICE TO INTERMEDIATE AUTOMOBILE VEHICLE DEALERS**



(57) Abstract: A method for provided Web based lease quoting services to vehicle dealers via an authenticated Internet connection. Dealer downloads a user-interface and financial calculation program from a vendor web-site, or installs the program via portable storage media, to a dealer local work station. Dealer then downloads financial calculation parameters (106, 116) and program code for generating lease quotes for each of a plurality of lenders. Dealer inputs purchaser and product information (104, 114) via GUI. Based on lender-specific financial calculation parameters and program code, and on input buyer and product information. Dealer produces lease quotes (120) and prints contracts and other forms.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/07352

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

US CL : 705/38

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/38

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

search terms: lease, quote, plan, arrangement, contract, rate, rating, car, auto, automobile, vehicle, value

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,774,664 A (CAMPBELL et al) 27 September 1988, see the entire document.	1-6

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

10 JUNE 2001

Date of mailing of the international search report

27 JUN 2001

 Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
 Box PCT
 Washington, D.C. 20231

Facsimile No. (703) 308-5401

Authorized officer

WALTER MALINOWSKI

Telephone No. (703) 308-3172